Fact File

RIVER LODDON

GUARDIANS OF THE WATER ENVIRONMENT

NRA

National Rivers Authority
Thames Region

Fact File-RIVER LODDON

FACTS IN BRIEF

- The River Loddon rises at West Ham Farm, Basingstoke and flows in a north-easterly direction to its confluence with the Thames just west of Wargrave.
- The valley of the River Loddon lies almost wholly on clay with only the upper reaches of the Loddon, Lyde and Whitewater extending into the chalk of the Hampshire Downs.
- The Loddon catchment covers an area of 680 sq km.
- The average annual rainfall in the Loddon catchment is 712mm
- The catchment is mainly agricultural with the exception of the new expanding town of Basingstoke in the south west, the urban fringes of Reading and the upper part of the Blackwater valley.
- The fall in the river from Basingstoke to its confluence with the Thames is approximately 47 metres.
- From its source to the Thames confluence the river is 45.2 kms long.
- The lower reaches of the river are notable for a large number of water mills, none now using the river for power.
- The lower parts of the valleys of the Loddon and Blackwater have been exploited for gravel raising, leaving large areas of lakes.

THE NATIONAL RIVERS AUTHORITY

Established on 1 September 1989, the NRA is an independent public body charged with safeguarding and improving the natural water environment. It is responsible for flood defence, regulating the quality of rivers and groundwaters, balancing the needs of various water users, protecting and improving fish stocks and promoting water based recreation of all kinds. The NRA is committed to improving wildlife habitats and conserving the natural environment in all it undertakes.

TRIBUTARIES

The Bow Brook and the River Lyde rise to the north west and the east of Basingstoke respectively and meet the Loddon at Sherfield on Loddon. The major tributary, the River Blackwater (subject of a separate leaflet), rises south of Aldershot and flows through Farnborough, Camberley and Sandhurst, meeting the main river near Swallowfield. The River Whitewater rises at Greywell and meets the Blackwater at Riseley and the River Hart rises at Crondall and meets the Whitewater at Bramshill. Further downstream, the Barkham Brook, the Emm Brook and the Twyford Brook join the Loddon before its confluence with the Thames.

PLANNING LIAISON

The NRA works with local planning authorities to protect the Loddon catchment from undesirable development.

WATER QUALITY

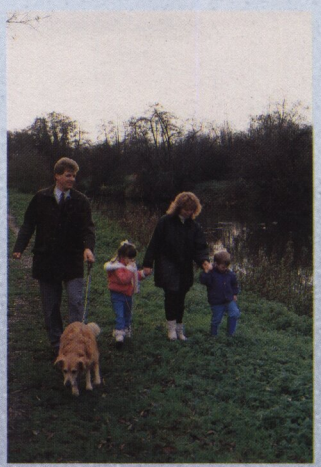
The Loddon is a high quality river and predominantly rural in nature. It receives treated sewage effluent directly from only two large sewage treatment works, at Basingstoke and Wargrave. However, its major tributary, the River Blackwater, drains a highly urbanised catchment and in dry weather contains a high proportion of treated sewage effluent.

There are 20 regular quality monitoring points within the Loddon valley, excluding the Blackwater catchment.

WATER QUALITY OBJECTIVES

From	To	Length Km	Objective
LODDON			
Source	Basingstoke STW	7.8	lB - Good
Basingstoke STW	Blackwater	18.2	lB - Good
Blackwater	Thames	19.2	2A - Fair
LYDE			
Source	Perennial head	0.6	E*
Perennial head	Loddon	8.7	lA - Good
BOW BROOK			
Ramsdell	Loddon	13.2	lB - Good
BARKHAM BROOK			
Source	Loddon	6.9	lB - Good
EMM BROOK			
Pinewood Hospital	Loddon	12.7	2B - Fair

* E - Ephemeral: stream is regularly dry. When flowing it should comply with the objective of the downstream reach.



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BIOLOGY

The rivers of the Loddon catchment are regularly sampled for aquatic invertebrates by the biologists of the NRA. The River Loddon itself and the Lyde have a high diversity of aquatic life, reflecting the generally good water quality. Twenty to thirty different aquatic invertebrates may be present when the biologists carry out their checks.

DISCHARGES

The following are the major discharges into the Loddon and its tributaries, excluding the Blackwater. The figures are the maximum amount permitted to be discharged.

Discharge	Cubic Metres Per Day	Type of Effluent
Bridge Farm Fish Farm	30000	Fish Farm
Basingstoke STW	65000	Sewage effluent
Andwell Mill Fish Farm (via Lyde)	23172	Fish Farm
Sherfield on Loddon STW (via Bow Brook)	2319	Sewage effluent
Arborfield STW (via Barkham Brook)	10500	Sewage effluent
Wokingham STW (via Emm Brook)	18000	Sewage effluent
Easthampstead Park STW (via Emm Brook)	5034	Sewage effluent
Redland Gravel (Twyford)	2182	Mineral
Wargrave STW	90000	Sewage effluent

Due to the rural nature of most of the catchment, there are a number of small sewage treatment works serving houses, schools and public houses. These are all monitored by the NRA.

WATER RESOURCES

Rivers are a major source of drinking water. They also provide essential water supply to agriculture and industry and a natural and efficient means of disposing of discharged effluent. Ensuring that there is enough water to go round calls for a delicate balancing act on the part of NRA staff. The majority of water taken out of most rivers is used for public drinking water and similarly, the majority of effluent comes from sewage treatment works.

However, much water for public supply purposes comes from underground sources. This can also ultimately affect flows in rivers.

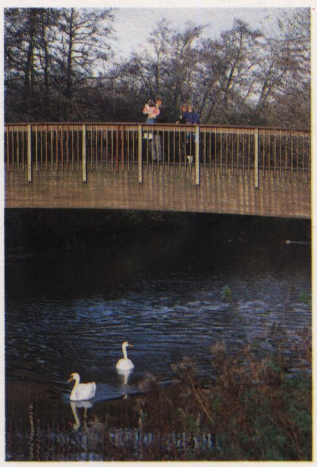
In order to ensure that there is sufficient information on river flows, the NRA carries out regular measurements and has a number of fixed gauging stations.

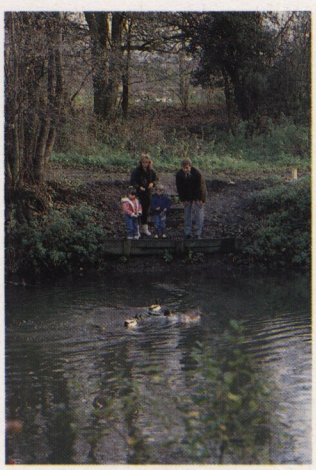
ABSTRACTIONS

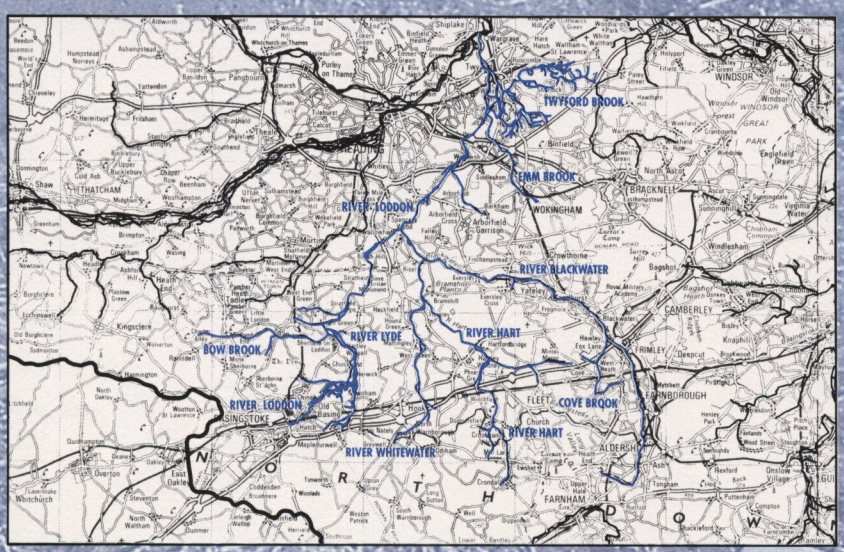
Water can only be abstracted from rivers or groundwater under licence. NRA water resources staff are responsible for licensing abstractions throughout the Thames Region.

There are no major abstractions from the Loddon or its tributaries but a number of licences for spray irrigation purposes.

Abstraction from groundwater reserves is more significant in the Loddon catchment area and the Mid Southern Water Company operates a number of important pumping stations.







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FLOOD DEFENCE

Following the development of Basingstoke, the River Loddon was dredged and enlarged to cater for the increase in urban surface water drainage. The river is prone to flooding, most notably in February 1990, November 1974 and September 1968.

Reducing the risk of flooding from the Loddon and its tributaries on a day-to-day basis and planning major flood defence projects in the Loddon catchment forms part of the NRA Thames Region's work.

The NRA's river control room at Reading keeps a round the clock check on weather conditions and river levels. Staff interpret the information and give the local emergency services early warning of possible floods.

A flood defence team is based at Sunbury to carry out regular river maintenance work. This includes dredging, weedcutting, and removal of blockages. This team is mobilized during flood emergencies to keep rivers clear of obstructions so that flood waters can be conveyed away as quickly as possible. They also provide assistance to environmental quality staff in cleaning up after pollution incidents.

The NRA is committed to protecting and improving the natural river environment and wherever possible our flood defence work includes features of environmental conservation and enhancement.

WILDLIFE

The Loddon catchment is famed for the Loddon Pondweed and the Loddon Lily, both of which are Red Data Book species. Loddon Pondweed is one of Britain's rarest aquatic plants, though locally common in the Loddon catchment. A report has been commissioned to investigate the transplanting of the species to protect and enhance the populations during flood defence operations.

The Loddon Lily is a native of wet meadows, wet woodland, and islands, although it has been commonly cultivated and has escaped to other localities.

FISH IN THE LODDON

The River Loddon and its major tributaries support excellent populations of coarse and game fish.

Upper reaches of the Loddon above Stanford End, along with the Whitewater and the Lyde contain wild brown trout and are extensively managed as "put and take" trout fisheries.

Downstream from Swallowfield, the river is noted for its quality barbel. Other species found include roach, dace, gudgeon, perch and pike. Slower, deeper sections also contain bream shoals, and eels are found throughout the Loddon system. The Blackwater tributary, despite its highly urbanised catchment hosts an excellent population of roach.

The diversity of fish species on the Loddon is influenced to some extent by the large number of mills and weirs on the river which impound stretches of water and create a uniform habitat. Elsewhere the habitats are more varied and so are the species to be found.

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